Docket No. 80-40304748 (formerly 6208-024)

Listing of Claims:

This listing of claims reflects the claims that are currently pending in the application:

1. (currently amended) A <u>computer-implemented</u> method for determining the comparability of

at least two bonds, comprising the steps of:

identifying a plurality of factors associated with said at least two bonds;

determining a value for each of said plurality of factors for each of said at least two bonds;

forming a covariance matrix, said covariance matrix including a weighting factor for each of

said plurality of factors wherein each of said weighting factors relates to an amount of market

activity attributed to said corresponding one of said plurality of factors; and

determining the comparability of said at least two bonds based on said values for each of said

at least two bonds and said covariance matrix,

wherein at least one of said steps is implemented with a computer.

2. (original) The method of claim 1, wherein said values for said plurality of factors for each of

said at least two bonds relate to sector information, bond rating information, a duration and a time to

maturity.

3. (original) The method of claim 2, wherein said values relate to an issuer country, a put

schedule, a call schedule, a sinking fund schedule, a coupon rate and an asset swap spread.

4. (original) The method of claim 1, wherein said market activity are price changes in the

market for a previous period of time.

5. (original) The method of claim 4, wherein said period of time is in the range of one week to

1 year.

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6. (original) The method of claim 1, wherein the step of determining the comparability includes the step of:

determining the comparability according to:

$$\frac{\mathbf{f_1'}\Omega\mathbf{f_2}}{\sqrt{\mathbf{f_1'}\Omega\mathbf{f_1}\mathbf{f_2'}\Omega\mathbf{f_2}}}$$

wherein f_1 are the values for said plurality of factors for a first of said at least two bonds, f_2 are the values for said plurality of factors for a second of said at least two bonds and Ω is said covariance matrix.

7. (original) The method of claim 1, wherein the step of determining the comparability includes the step of:

determining the comparability according to:

$$(\mathbf{f}_1 - \mathbf{f}_2)'\Omega(\mathbf{f}_1 - \mathbf{f}_2) + \delta^2(\mathbf{f})$$

wherein f_1 are the values for said plurality of factors for a first of said at least two bonds, f_2 are the values for said plurality of factors for a second of said at least two bonds and Ω is said covariance matrix.

- 8. (original) The method of claim 1, further comprising the step of: tuning said covariance matrix by adjusting said weighting factor for at least one of said plurality of factors.
- 9. (currently amended) A <u>computer-implemented</u> method for determining the comparability between a primary bond and each bond in a list of bonds, comprising the steps of:

identifying a plurality of factors associated with said each bonds;

determining a value for each of said plurality of factors for said primary bond and for said each bond in said list of bonds;

forming a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors; and

determining the comparability between said primary bond and said each bond in said list of bonds based on said values for said primary bond, said values for said each bond in said list of bonds and said covariance matrix,

wherein at least one of said steps is implemented with a computer.

- 10. (original) The method of claim 9, further comprising the step of: ordering each bond in said list of bonds according to the comparability of each bond in said list of bonds to said primary bond.
- 11. (currently amended) A <u>computer-implemented</u> method for determining the comparability between a portfolio of bonds and an index of bonds, comprising the steps of:

identifying a plurality of factors associated with said portfolio of bonds and said index of bonds;

determining a value for each of said plurality of factors for said portfolio of bonds determining a value for each of said plurality of factors for said index of bonds;

forming a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors; and

determining the comparability between said portfolio of bonds and said index of bonds based on said values for said portfolio of bonds, said values for index of bonds and said covariance matrix,

12. (original) Computer executable program code residing on a computer-readable medium, the program code comprising instructions for causing the computer to:

determine the comparability of at least two bonds;

wherein at least one of said steps is implemented with a computer.

identify a plurality of factors associated with said at least two bonds;

determine a value for each of said plurality of factors for each of said at least two bonds;

form a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors;

determine the comparability between said at least two bonds based on said values for each of said at least two bonds and said covariance matrix.

- 13. (original) The computer executable program code of claim 12, wherein said values for said plurality of factors for each of said at least two bonds relate to sector information, bond rating information, a duration and a time to maturity.
- 14. (original) The computer executable program code of claim 13, wherein said values relate to an issuer country, a put schedule, a call schedule, a sinking fund scheduler, a coupon rate and an asset swap spread.
- 15. (original) The computer executable program code of claim 12, wherein said market activity are price changes in the market for a period of time

- 16. (original) The method of claim 15, wherein said period of time is in the range of one week to 1 year.
- 17. (original) The computer executable program code of claim 12, wherein the program code additionally causes the computer to:

determine the comparability according to:

$$\frac{\mathbf{f_1'\Omega f_2}}{\sqrt{\mathbf{f_1'\Omega f_1 f_2'\Omega f_2}}}$$

wherein f_1 are the values for said plurality of factors for a first of said at least two bonds, f_2 are the values for said plurality of factors for a second of said at least two bonds and Ω is said covariance matrix.

18. (original) The computer executable program of claim 12 wherein the program code additionally causes the computer to:

determine the comparability according to:

$$(\mathbf{f}_1 - \mathbf{f}_2)'\Omega(\mathbf{f}_1 - \mathbf{f}_2) + \delta^2(\mathbf{f})$$

wherein f_1 are the values for said plurality of factors for a first of said at least two bonds, f_2 are the values for said plurality of factors for a second of said at least two bonds and Ω is said covariance matrix.

19. (original) The computer executable program of claim 12 wherein the program code additionally causes the computer to:

tune said covariance matrix by adjusting said weighting factor for at least one of said plurality of factors.

20. (currently amended) A <u>programmed computer</u> system for determining the comparability between at least two bonds, comprising:

a factor vector generator for identifying a plurality of factors associated with said at least two bonds and determining a value for each of said plurality of factors for each of said at least two bonds;

a covariance matrix generator for forming a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors;

a comparability calculator, said comparability calculator receiving from said factor vector generator said values for each of said plurality of factors for each of said at least two bonds, said comparability generator receiving said covariance matrix from said covariance matrix generator, said comparability generator determining the comparability of said at least two bonds based on said values for each of said at least two bonds and said covariance matrix.

- 21. (original) The system of claim 20 wherein said values for each of said at least two bonds relate to sector information, bond rating information, a duration and a time to maturity.
- 22. (original) The system of claim 21 wherein said values relate to an issuer country, a put schedule, a call schedule, a sinking fund schedule, a coupon rate and an asset swap spread.
- 23. (original) The system of claim 20, wherein said market activity are price changes in the market for a period of time.
- 24. (original) The method of claim 23, wherein said period of time is in the range of one week to 1 year.

25. (original) The system of claim 20, wherein said comparability generator determines the comparability according to:

$$\frac{\mathbf{f_1'}\Omega\mathbf{f_2}}{\sqrt{\mathbf{f_1'}\Omega\mathbf{f_1}\mathbf{f_2'}\Omega\mathbf{f_2}}}$$

wherein f_1 are the values for said plurality of factors for a first of said at least two bonds, f_2 are the values for said plurality of factors for a second of said at least two bonds and Ω is said covariance matrix.

26. (original) The system of claim 20, wherein said comparability generator determines the comparability according to:

$$(\mathbf{f}_1 - \mathbf{f}_2)'\Omega(\mathbf{f}_1 - \mathbf{f}_2) + \delta^2(\mathbf{f}_1)$$

wherein f_1 are the values for said plurality of factors for a first of said at least two bonds, f_2 are the values for said plurality of factors for a second of said at least two bonds and Ω is said covariance matrix.

- 27. (original) The system of claim 20, wherein said covariance matrix is tuned by adjusting said weighting factor for at least one of said plurality of factors.
- 28. (original) The system of claim 20, wherein said factor vector generator identifies said a plurality of factors and determines said value for each of said plurality of factors for each of said at least two bonds based on market information.
- 29. (original) The system of claim 20, wherein said covariance matrix generator forms said covariance matrix based on market information.

- 30. (original) The system of claim 20, wherein said comparability calculator executes on a computer system and further comprising an access device in communications with said computer system for issuing a comparability request to said comparability generator.
- 31. (currently amended) A <u>computer-implemented</u> method for determining the comparability between at least two instrument, comprising the steps of:

identifying a plurality of factors associated with said at least two instruments;

determining a value for each of said plurality of factors for each of said at least two instruments;

forming a covariance matrix, said covariance matrix including a weighting factor for each of said plurality of factors wherein each of said weighting factors relates to an amount of market activity attributed to said corresponding one of said plurality of factors; and

determining the comparability of said at least two instruments based on said values for each of said at least two instruments and said covariance matrix, wherein at least one of said steps is implemented with a computer.

- 32. (original) The method of claim 31, wherein said instruments are equities and said values for said plurality of factors for each of said at least two instruments relate to sector information, volatility, profitability measures, market capitalization and price-to-earnings ratio.
- 33. (original) The method of claim 31, wherein said market activity are price changes in the market for a previous period of time.
- 34. (original) The method of claim 33, wherein said period of time is in the range of one week to 1 year.

35. (original) The method of claim 31, wherein the step of determining the comparability includes the step of:

determining the comparability according to:

$$\frac{\mathbf{f_1'}\Omega\mathbf{f_2}}{\sqrt{\mathbf{f_1'}\Omega\mathbf{f_1}\mathbf{f_2'}\Omega\mathbf{f_2}}}$$

wherein $\mathbf{f_1}$ are the values for said plurality of factors for a first of said at least two instruments, $\mathbf{f_2}$ are the values for said plurality of factors for a second of said at least two instruments and Ω is said covariance matrix.

36. (original) The method of claim 31, wherein the step of determining the comparability includes the step of:

determining the comparability according to:

$$(f_1 - f_2)'\Omega(f_1 - f_2) + \mathcal{E}^2(\P)$$

wherein f_1 are the values for said plurality of factors for a first of said at least two instruments, f_2 are the values for said plurality of factors for a second of said at least two instruments and Ω is said covariance matrix.

37. (original) The method of claim 31, further comprising the step of:

tuning said covariance matrix by adjusting said weighting factor for at least one of said plurality of factors.